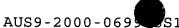
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CLAIMS

What is claimed is:

A method for managing resources within a distributed 1. data processing system, the method comprising the steps of:

receiving a lease request for a resource;

in response to receiving the lease request, securing leases on a logical circuit of resources through the distributed data processing system; and

in response to securing leases on a logical circuit of resources, sending a lease grant for the resource.

2. The method of claim 1, wherein the step of receiving a lease request for a resource further comprises:

receiving, at a first resource manager, a request from a resource requester to lease a first requested resource for a requested lease period.

The method of claim 2, wherein the step of securing 3. a logical circuit of resources further comprises:

determining a data path through the distributed data processing system between the resource requester and the requested resource;

- requesting, by the first resource manager, a lease from a second resource manager for a second requested resource along the data path, wherein use of the first requested resource requires use of the second requested resource; and
- 30 receiving, at the first resource manager, a first granted lease for the second requested resource from the second resource manager.

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4. The method of claim 3, wherein the step of sending a lease grant for the resource further comprises:

in response to receiving the first granted lease for the second requested resource, sending a second granted lease to the resource requester by the first resource manager.

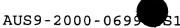
The method of claim 4 further comprising: detecting an oversubscribed condition on the first requested resource; and

in response to the detected oversubscribed condition, reducing a requested lease period in the second granted lease.

6. The method of claim 3, wherein the step of determining a data path through the distributed data processing system further comprises:

retrieving a predetermined data path that has been previously stored after a dynamic discovery process of devices within the distributed data processing system.

- The method of claim 1 further comprising:
 detecting an oversubscribed condition on the resource; and reducing a lease period for the granted lease.
- 8. The method of claim 1 further comprising:
 30 detecting an error condition; and
 reducing a lease period for the lease grant.



An apparatus for managing resources within a distributed data processing system, the apparatus comprising:

first receiving means for receiving a lease request for a resource;

securing means for securing, in response to receiving the lease request, leases on a logical circuit of resources through the distributed data processing system; and

10 sending means for sending, in response to securing leases on a logical circuit of resources, a lease grant for the resource.

The apparatus of claim 9, wherein the first 10. receiving means further comprises:

second receiving means for receiving, at a first resource manager, a request from a resource requester to lease a first requested resource for a requested lease period.

The apparatus of claim 10, wherein the securing means further comprises:

determining means for determining a data path through the distributed data processing system between the resource requester and the requested resource;

requesting means for requesting, by the first resource manager, a lease from a second resource manager for a second requested resource along the data path, wherein use of the first requested resource requires use of the second requested resource; and

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third receiving means for receiving, at the first resource manager, a first granted lease for the second requested resource from the second resource manager.

5 The apparatus of claim 11, wherein the first sending means further comprises:

second sending means for sending, in response to receiving the first granted lease for the second requested resource, a second granted lease to the resource requester by the first resource manager.

The apparatus of claim 12 further comprising:

first detecting means for detecting an oversubscribed condition on the first requested resource; and

first reducing means for reducing in response to the detected oversubscribed condition, a requested lease period in the second granted lease.

20 The apparatus of claim 11, wherein the determining means further comprises:

retrieving means for retrieving a predetermined data path that has been previously stored after a dynamic discovery process of devices within the distributed data processing system.

The apparatus of claim 9 further comprising: second detecting means for detecting an

oversubscribed condition on the resource; and

30 second reducing means for reducing a lease period for the granted lease.



The apparatus of claim 9 further comprising: third detecting means for detecting an error condition; and

third reducing means for reducing a lease period for the lease grant.

A computer program product on a computer readable medium for use in a data processing system for managing resources within the distributed data processing system, the computer program product comprising:

first instructions for receiving a lease request for a resource;

instructions for securing, in response to receiving the lease request, leases on a logical circuit of resources through the distributed data processing system; and

first instructions for sending, in response to securing leases on a logical circuit of resources, a lease grant for the resource.

The computer program product of claim 17, wherein the first instructions for receiving further comprises:

second instructions for receiving, at a first resource manager, a request from a resource requester to lease a first requested resource for a requested lease period.

The computer program product of claim 18, wherein the instructions for securing further comprises:

instructions for determining a data path through the distributed data processing system between the resource requester and the requested resource;

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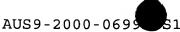
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instructions for requesting, by the first resource manager, a lease from a second resource manager for a second requested resource along the data path, wherein use of the first requested resource requires use of the second requested resource; and

third instructions for receiving, at the first resource manager, a first granted lease for the second requested resource from the second resource manager.

10 20. The computer program product of claim 19, wherein the first instructions for sending further comprises:

second instructions for sending, in response to receiving the first granted lease for the second requested resource, a second granted lease to the resource requester by the first resource manager.

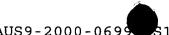
21. The computer program product of claim 20 further comprising:

first instructions for detecting an oversubscribed condition on the first requested resource; and

first instructions for reducing in response to the detected oversubscribed condition, a requested lease period in the second granted lease.

25 The computer program product of claim 19, wherein the instructions for determining further comprises:

instructions for retrieving a predetermined data path that has been previously stored after a dynamic discovery process of devices within the distributed data processing system.



The computer program product of claim 17 further comprising:

second instructions for detecting an oversubscribed condition on the resource; and

- 5 second instructions for reducing a lease period for the granted lease.
 - The computer program product of claim 17 further comprising:
- 10 third instructions for detecting an error condition; and

third instructions for reducing a lease period for the lease grant.

15 25. A network comprising:

> first receiving means for receiving a lease request for a resource;

> securing means for securing, in response to receiving the lease request, leases on a logical circuit of resources through the distributed data processing system; and

sending means for sending, in response to securing leases on a logical circuit of resources, a lease grant for the resource.

The network of claim 25, wherein the first receiving means further comprises:

second receiving means for receiving, at a first resource manager, a request from a resource requester to lease a first requested resource for a requested lease period.

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The network of claim 26, wherein the securing means further comprises:

determining means for determining a data path through the distributed data processing system between the resource requester and the requested resource;

requesting means for requesting, by the first resource manager, a lease from a second resource manager for a second requested resource along the data path, wherein use of the first requested resource requires use of the second requested resource; and

third receiving means for receiving, at the first resource manager, a first granted lease for the second requested resource from the second resource manager.

The network of claim 27, wherein the first sending 28. means further comprises:

second sending means for sending, in response to receiving the first granted lease for the second requested resource, a second granted lease to the resource requester by the first resource manager.

The network of claim 28 further comprising: 29.

first detecting means for detecting an oversubscribed condition on the first requested resource; and

first reducing means for reducing in response to the detected oversubscribed condition, a requested lease period in the second granted lease.

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30. The network of claim 27, wherein the determining means further comprises:

retrieving means for retrieving a predetermined data path that has been previously stored after a dynamic discovery process of devices within the distributed data processing system.

- 31. The network of claim 25 further comprising:
 second detecting means for detecting an
 oversubscribed condition on the resource; and
 second reducing means for reducing a lease period
 for the granted lease.
- 32. The network of claim 25 further comprising: third detecting means for detecting an error condition; and

third reducing means for reducing a lease period for the lease grant.